Remarks

A Request for Continued Examination (RCE) for the above case was filed June 8, 2005. A first Office Action after the RCE was mailed June 23, 2005, and this Office Action rejected all pending claims 1-5, 7 and 21-30.

The Applicant has hereinabove provided amendments to the abstract and claims. The amendments correct minor errors, do not narrow the claimed subject matter, and are not provided in response to or to overcome the claim rejections of the first Office Action.

Independent claim 1 has been amended to replace "the vibration signal" with "said frequency domain digital signal" to eliminate a lack of antecedent basis in the claim. Similar corrective and/or clarifying amendments are provided in claims 2, 3, 23, 25-27, and 29-30.

Independent claim 21 has been amended to now generally feature first and second transducers. The first transducer generally produces an analog signal in response to mechanical vibration of said transducer induced by a member rotated at an instantaneous speed less than an operational speed of said member. Support for this is found including in previously presented claim 24 and in the specification at page 3, lines 23-25, page 7, lines 23-25, and at page 10, lines 6-12.

The second transducer generally detects said instantaneous speed of the rotating member. Support for this is found in the language of original claim 1 as well as in the specification at page 8, lines 3-12.

Claim 21 has further been amended to generally feature a processor which processes the digital signal in relation to a frequency associated with said instantaneous speed. Support for this is found in the language of original claim 1 as well as by FIGS. 4 and 5.

Dependent claim 22 now generally features the second transducer as an optic sensor responsive to a target feature of the rotating member, as previously presented in claim 21. Dependent claim 24 now generally features the first transducer as a piezoelectric element coupled to said rotating member. Support for this latter amendment is found including in FIG. 3 and in the specification at page 7, lines 24-25.

These amendments are believed to be proper, do not introduce new matter, and serve to place the application in proper condition for reconsideration and allowance.

Objection to the Abstract

The first Office Action objected to the Abstract. In response, an amended Abstract has been provided as indicated above. Reconsideration and withdrawal of the objection to the Abstract are requested in view of these amendments.

Rejection of Claims Under 35 U.S.C. §102(b)

Claims 1-5 and 21-30 were rejected under §102(b) as being anticipated by U.S. Patent No. 6,181,652 issued to Katou et al. ("Katou '652"). This rejection is respectfully traversed.

With regard to previously presented claim 1, the Applicant respectfully submits that Katou '652 at least failed to disclose "an optic sensor, responsive to a target feature on the rotating member, adapted to detect an instantaneous speed of the rotating member and trigger the data acquisition member to begin sampling when the rotating member is rotating." (Claim 1, lines 8-11). The Examiner identified optical pick-up (transducer) 6 in Katou '652 as meeting this limitation, but a review of the reference readily shows this

characterization to be in error.

Since the optical pick-up 6 is disclosed as constituting a conventional optical transducer of a CD player, there is nothing explicit or inherent in Katou '652 that indicates the transducer is used to either detect an instantaneous speed, or to trigger the data acquisition member as claimed. Rather, speed sensor 12 in FIG. 9 is the only component disclosed as providing such instantaneous speed detection, and would be understood as such by one skilled in the art. There is nothing to indicate that the sensor 12 is an optical sensor as claimed, so characterization as such would be speculative.

Moreover, since Katou '652 discloses the data on the CD disc 4 as being recorded using constant linear velocity (CLV) techniques so that all pit and land symbols 3T-11T on the disc are respectively of the same nominal length, the fact that the pick-up 6 detects pit/land transitions at a fixed clock frequency (some multiple of 4.3218 MHz) provides absolutely no indication of the instantaneous speed of the disc. Those skilled in the art would readily understand that at a 1X readback near the inner diameter of the disc the disc velocity will be somewhere near 500 RPM, whereas a 1X readback near the outer diameter of the disc the disc velocity will be somewhere near 350 RPM. Thus, the analog readback signal from the transducer 6 cannot be reasonably interpreted as detection of an instantaneous velocity of the disc, as set forth by claim 1.

Furthermore, the Applicant presumes that the Examiner has identified ADC 15 in FIG. 9 as corresponding to the recited "analog-to-digital data acquisition member" of claim 1. If so, Katou '652 is silent with regard to using the transducer 6 to trigger the ADC 15 to begin sampling, as set forth by claim 1.

Katou '652 is further at least silent with regard to disclosing "a processor

comprising an input connected to the data acquisition member output for translating the time domain digital signal to a frequency domain digital signal," as further recited by previously presented claim 1. There is nothing expressly or inherently set forth whereby the digital output of DAC 15 is translated to a frequency domain digital signal. See, for example, the circuitry of FIG. 10 and col. 8, lines 40-48 and col. 9, line 65 *et seq*.

The amendments to claim 1 as discussed above are merely to correct a minor antecedent basis error, so that the aforediscussed deficiencies of Katou '652 apply equally well to claim 1 as now amended. Accordingly, reconsideration and withdrawal of the rejection of claim 1, as well as for the claims depending therefrom, are respectfully requested.

With regard to independent claim 21, the Applicant notes that the deficiencies of Katou '652 with regard to at least the recited "optic sensor...adapted to detect an instantaneous speed of the rotating member" are equally applicable to claim 21, so that the rejection of claim 21 was improper as well.

However, the Applicant has taken the opportunity to broaden claim 21 as indicated above, and to further recite a first transducer which produces an analog signal in response to mechanical vibration of said transducer induced by a member rotated at an instantaneous speed less than an operational speed of said member."

Those skilled in the art will readily recognize that since Katou '652 uses tracking photoelements A-F (FIG. 2) during operational reading of the disc 4, then Katou '652 is necessarily silent with regard to the above limitation, since the speed at which the disc 4 is rotated must be an operational speed sufficient to allow the data stored on the disc 4 to be read by the pick-up 6.

Accordingly, reconsideration and withdrawal of the rejection of claim 21, and for the claims depending therefrom, are respectfully requested on this basis as well.

Rejection of Claim 7 Under 35 U.S.C. §103(a)

Claim 7 was rejected under §103(a) as being obvious over Katou '652 in view of U.S. Published Patent Application No. 2003/016045 to Argento et al. ("Argento '045"). This rejection is respectfully traversed.

Argento '045 adds nothing of significance to make up for the deficiencies of Katou '652 outlined above. Accordingly, reconsideration and allowance of claim 7 is respectfully requested on this basis.

Conclusion

The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application. This Response is intended to be a complete response to the Office Action mailed June 23, 2005.

Should any questions arise concerning this response, the Examiner is invited to contact the below signed Attorney.

Respectfully submitted,

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